

P-W

TUTWEILER-CAMELBACK #1, Maricopa Co.
Sec 30-T2N-R4E 7-5

County Maricopa

Area _____

Lease No. _____

Well Name L.D. Dutweiler, -Trustee Camelback #1

Location NE NW Sec 30 Twp 2N Range 4E Footage est. 150 ft / 2450 ft

Elev 1215 Gr _____ KB Date _____ Spud _____ Complete _____ Total _____
Temp 7 1/4 ft Abandon 1907 Depth 2818

Contractor: _____ Approx. Cost \$ _____

Drilled by Rotary _____
Cable Tool _____

Casing Size _____ Depth _____ Cement _____

Production Horizon _____

Initial Production De'A

REMARKS: No information

Elec. _____
Logs _____
Applic _____ Plugging _____ Completion _____
to Plub _____ Record _____ Report _____

Sample Log ☒ _____
Sample Descript _____
Sample Set _____
Cores _____

Water well - accepted by _____

Bond Co. _____
& No. _____

Bond Am't \$ _____ Cancelled _____ Date _____
Organization Report _____

Filing Receipt _____ dated _____ Well Book _____ Plat Book _____

Loc. Plat _____ Dedication _____

API # 02-013-05016

PERMIT NO. none Date Issued _____

#7-5

C
O
P
Y

Thompson Co.

LOG OF CAMELBACK WELL

NE $\frac{1}{4}$, NW $\frac{1}{4}$ Sec. 30, T. 2 N., R. 4 E.

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
0-4	Soil	4 Feet
4-64	Cemented hardpan	60
64-60	Loose granite dry	2
66-130	Cemented hardpan	64
130-138	Loose granite - water	8
138-160	Cemented hardpan	22
160-182	Sandstone red and gray	22
182-190	Granite, gravel and water	8
190-198	Gray sandstone	8
198-282	Fine clay	84
282-388	Fine clay	106
388-398	Granite quartz	2
390-408	Clay shale	18
408-418	Shale	7
418-428	Blue granite (very hard)	8
428-618	Shale	198
618-619	Sand (oil seepage)	1
619-658	Shale with apparent veins of sand, oil seepage increasing with depth, strong gas odor	34
658-848	Shale and heavy clay	193
Total Depth		848

Note 148' of 12" pipe with shoe 14' O.D.
 558' of 10" " " 12' O.D.
 Bits used 14' to depth 64 feet - 12" to 640 feet
 10" to 848 feet,
Signed by W. D. Tanner, Driller

848-851	Sandy shale and slate	8
851-862	Shale, slate and clay	11
862-871	Shale and clay	9
871-880	Shale and sandstone etc.	9
880-889	Shale " "	9
889-895	" " "	6
895-902	Shale	7
902-905	"	3
905-906	Sand - oil showing	1
906-918	Shale	12
918-930	Shale	12
930-939	" and sandstone	9
939-945	Shale and clay	6
945-953	" " "	8
953-957	Shale, clay and oil globes	34
957-1011	" " " "	24
1011-1028	Shale and clay	17
1028-1036	Gray silica sand - streaks of clay at intervals of 2 feet.	8
1036-1045	Same material but less clay	9
1045-1052	Gray sandstone - soft and streaky with large pieces caving	7
1052-1064	Dark gray sandstone with less white silica sand - Gave good oil colors every bailer	12

Thompson Co.

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
1084-1075	Very white silica sandstone with little oil colors to be seen	11 Feet
1075-1084	Dark brown clay smelling very much like soapstone	9
1084-1093	Black clay and mixed with streaks of white clay - also some gray and red sandstone between	9
1093-1110	Conglomerate of streaks of slate and gray sand, also streaks of white & brown clay at intervals of 12" to 15" thick each	17
1110-1117	Almost pure white silica sandstone and some red sandstone, mixed quite coarse - gave out Good oil colors every time bailer was run and small black specks of asphaltum to be seen floating on surface of pond	7
1117-1130	Gray silica - sandstone - streaks of white clay at intervals of about every 2 feet. Here also were good oil colors to be seen	13
1130-1152	Conglomerate of sand clay - also thin layers of gray sandstone, also good oil colors to be seen	22
1152-1158	White silica sandstone, quite hard - very fine grained	6
1158-1170	Gray sandstone and streaks of soapstone - about 3 ft. each	12
1170-1196	White silica - sandstone with streaks of white and dark colored clays in streaks.	26
1196-1210	Gray silica sandstone, also streaks of black and brown clays. Here at this open caveout fine colors of oil, also those black asphaltum specks on the water.	14
1210-1235	White and gray silica sandstones mixed, also stratas of brown clay - giving out good colors of oil when bailed	25
1235-1260	Gray coarse sandstone and stratas of mostly brown clay between at intervals of about 2 feet. At 1260 large black pieces of asphalt oil commenced to come up in the bailer - also commenced to appear very much yellow specks of paraffin - condensed - coming up with the bailer.	25
1260-1270	Coarse and gray sandstone, also a good deal of red sandstone. Mixed in this sandstone, the yellow paraffine oil pieces seemed to increase very much until the pan would be literally covered with those little oil specks - every time the bailer was run. Also large black condensed oil pieces came frequently.	10
1270-1282	Principally the same sandstone as from 1260 to 1270 but some streaks of clay were found between but the colors and the yellow oil specks increased until parts of the slush pond was literally covered with a greasy film of oil	12
1282-1295	Also was a soft gray sandstone with streaks of gray clay coming in between oil colors and the yellow paraffine specks came as plentiful as ever, and colors to cover the water continued	11

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
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1295-1300	Five feet of this was hard gray sandstone - two feet of it was gray clay - at 1300 ft. yellow oil specks or globules were as plentiful as before. The above depth was reached June 30 at 6:00 P.M.	
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Yours respectfully

(Signed) Neil Sinclair

P.S. From 1260-1298 was the first encountered well saturated or impregnated strata of oil, which I found until the present depth and the future prospect of finding a good oil well at this place looks very encouraging.

N.S.

July 2, 1906

1300-1320	Sandy clay with small streaks of sand, rock, oil colors, about as usual but not as strong	20
1320-1340	Mostly gray and brown clays with some thin stratas of white silica sand rock at 1332 good oil colors appeared again, also the yellow oil globules	20
1340-1349	Gray clay mostly with thin streaks of brown clay - good oil colors in the clay - also thin stratas of same	9
1349-1356	Very dark sugar or brown sandstone - had small pieces of oil rock mixed in. Good colors was shown at the depth	7
1356-1365	White silica sand and red sandstone mixed - showing of oil not so good at this depth	9
1365-1410	Mostly gray and dark colored clays with odd small stratas of white silica sandrock. Here at this depth the clays and sand became so much impregnated with those dry particles of asphaltum that it made a brown oil seum in the pan - every time it was bailed.	
1410-1418	Mostly dark colored clay with streaks of white silica sand and red mixed showing a good deal of the brown oil seum on pan	8
1418-1445	Mostly all gray clay with thin sand strata at intervals -- all showing good oil seum on pan	(15)
1445-1505	White and red silica sandstone with some streaks of gray clay at intervals. At 1460 again was some of that heavy and condensed brown oil - happened to fall in with the caving of shale and sand rock.	60
1505-1530	Hard gray sand - very compact - also about three feet very hard conglomerate of limestone with some quartz at 1508.	25
1530-1540	Fine gray sandstone of medium hardness - at this depth we stopped to wait for the 8-5/8" I.D. casing.	10

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
	The streaks of shale and sandstone commenced to cave so bad that it was considered better to stop boring and case the well to the above depth.	
	This was August 2, 1906	
	A derriek had to be built to a height of 66 feet so that 11 tons in weight of casing could be put in. Aug. 27 commenced putting in the casing - it took 2-1/2 days to reach the bottom of the well	
1556-1577	Hard gray sandstone - white streaks of limestone and rose colored quartz	19
1577-1590	Dark brown sandstone mixed with asphaltum globules - so it leaves a very heavy black scum of oil - containing these asphaltum globules	13
1590-1680	Gray and red conglomerate sandstone - also mixed at intervals with gray grindstone sand rock - very coarse always, getting out that asphaltum scum every time the bailer is run	90
1680-1690	Soft fine sand with very pronounced oil colors in the sand. This, the 15th day of September, when this depth was reached	10

Signed, Neil Sinclair

June 8, 1907

1690-1735	Dark clay sand with streaks of clay at intervals of 18 to 20 feet	45
1735-1762	Brown sand stratas with gray clay mixed between	27
1762-1810	Brown sandstone with about half gray clay - colors very strong at 1800 feet	48
1810-1860	About three-fourths gray clay - one-fourth light colored sand with good oil colors-	50
1860-1882	Dark brown sand - not much oil colors at this point	
	The bailer was fastened for some time, owing to part of the sandstone passing into the hole	22
1882-1905	Very dark brown sand - some gray clay mixed	23
1905-1928	Very brown and rusty iron sandstone - Here also was very good oil colors	23
1928-1940	Very rusty iron sand - almost red - very peculiar sand to be found at that depth	12
1940-1962	Half brown and rusty sand - the other half gray sandstone	
	Not much color of oil	22
1962-1978	Very dark and brown sandstone, Not much color of oil	16
1978-1986	Gray sandstone mixed with some gray clay - Some oil colors	8
1986-2021	Very brown and rusty iron-Oxidized sand with some oil colors when bailed	35

Hope

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
2021-2045	Gray silica sand with some brown sand mixed and some clay streaks mixed in about every two or three feet	24 Feet
2045-2070	Gray sandstone and gray clay - about half and half	25
2070-2100	At about 2060 to 2070 some small T.H.R. globules commenced to appear again when bailed	25
2100-2130	Was a gray sand with many oil colors when bailed	30
2130-2140	Gray sand - but iron-stained, containing considerable iron ore	30
2140-2182	Gray and blue sandstone in alternate stratas. Here was found an animal fossil, containing a backbone	10
2182-2210	Gray sand stratas about three feet thick with equal size stratas with gray clay between. Here was good oil colors	42
2210-2230	Gray sandstone with alternate stratas of shale	28
2230-2257	Shale stratas mixed with brown sandstone	20
2257-2312	Gray sandstone with about 50 per cent gray clay in alternate stratas - also some quartz. Colors showed good.	27
2312-2340	Were stratas of red clay and gray clay in alternate stratas of about three feet thick each, also some streaks of gray sand	55
2340-2354	Gray clay and gray sandstone in alternate stratas of about three feet each	28
2354-2374	Gray clay, mostly small streaks of gray sandstone, from 2348 to 2354 the bailer and tools came up all spotted with small particles of tar - very greasy	14
2374-2387	Mostly all gray sandstone with some gray clay mixed	20
2387-2399	Gray sharp sand rock with some red sand mixed very hard	

In this report is the total depth of well up until May 1, 1907

Yours most respectfully

(signed) Neil Sinclair

May 12, 1907

2387-2399	Gray sandstone - colors good	12
2399-2404	Tools spotted with oil	
2404-2428	Gray sandstone - oil smears on tools and cable	5
2428-2438	Gray sandstone - streaks of clay - shows some colors and smears	24
2438-2456	Sandstone and clay	38
2456-2489	Sandstone and clay	13
2489-2492	Gray sandstone - very hard	3
2492-2497	Light gray sandstone - very hard and fine grained - no oil showing but dead black seum on tools.	5

Under permit

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
2497-2506	Hard sandstone	9
2506-2515	" "	9
2515-2523	" "	8
2523-2530	" "	7
2530-2538	" "	8
2538-2544	" "	6
2544-2547	" "	3
2547-2553	" "	6
2553-2560	Hard fine grained sandstone - some little trace of gray streaks.	7

(Signed) W. D. Tanner, Driller

2560-2566	Hard fine grained sandstone	6
	Some little streaks of clay	7
2566-2573	" " "	6 1/2
2573-2585 1/2	Same	5 1/2
2585 1/2-2591	Same but little trace of clay	7
2591-2598	Straight sandstone	7
2598-2606	Mostly sand with trace of clay	7
2606-2612	Same formation	6
2612-2619	"	7
2619-2626	"	11
2626-2635	"	7
2635-2643	"	7
2643-2654	"	8
2654-2661	"	7
2661-2668	"	7
2668-2676	Gray sandstone	8
2676-2683	"	7
2683-2690	" - good colors	7
2690-2698	Water sand at 2694 light silica sand with good oil colors	8
2698-2705	Formation same with heavy scum	7
2705-2712	Some light silica sand with small cutting of blue limestone - good colors	7
2712-2719	Same formation	7
2719-2722	Same to 2720 - struck hard limestone	3
2722-2735	No records	

(signed) W. D. Tanner, Driller

2735-2742	Gray sandstone - good colors	7
	Thru dark slimes	10
2742-2752	Gray sandstone	9
2752-2759	" "	8
2759-2765	" "	7
2765-2775	Clay and sandstone	6
2775-2783	" "	
2783-2789	Clay	
2789-2810	"	

(Signed) W. D. Tanner, Driller

This is a copy of record of L. D. Tutweiler, Trustee, made by me.

(Signed) Chas. A. Diehl

for permit

2

LOG OF CAMELBACK WELL

NE $\frac{1}{4}$, NW $\frac{1}{4}$ Sec. 30, T. 2 N., R. 4 E.

<u>Depth</u>	<u>Formation</u>	<u>Thickness (Feet)</u>
0-4	Soil	4
4-64	Cemented hardpan	60
64-60	Loose Granite dry	2
66-130	Cemented hardpan	64
130-136	Loose granite - water	8
138-160	Cemented hardpan	22
160-182	Sandstone red and gray	22
182-190	Granite Gravel & Water	8
190-198	Gray sandstone	8
198-282	Fine clay	84
282-388	Fine clay	106
388-390	Granite Quartz	2
390-408	Clay Shale	18
408-415	Shale	7
415-423	Blue Granite (very hard)	8
423-618	Shale	195
618-619	Sand (oil seepage	1
619-653	Shale with apparent veins of sand, oil seepage increasing with depth, Strong gas odor	34
653-846	Shale and heavy clay	193
Total Depth		846'

Note 148' of 12" pipe with shoe 14' O.D.
556' of 10" " " " 12' O.D.
Bits used 14' to depth 64 feet - 12" to 640 feet
10" to 846 feet.

Signed by W. D. Tanner, Driller

846-851	Sandy shale and slate	5
851-862	Shale, slate and clay	11
862-871	Shale and clay	9
871-880	Shale and sandstone etc.	9
880-889	Shale " "	9
889-895	" " "	6
895-902	Shale	7
902-905	"	3
905-906	Sand - Oil showing	1
906-918	Shale	12
918-930	Shale	12
930-939	" and Sandstone	9
939-945	Shale & clay	6
945-953	" " "	8
953-987	Shale, clay & oil globs	34
987-1011	" " " "	24
1011-1028	Shale and Clay	17
1028-1036	Gray Silica sand - streaks of clay at intervals of 2 feet.	8
1036-1045	Same material but less clay	9

40 permit

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
1045-1052	Gray sandstone - soft & streaky with large pieces caving	7
1052-1064	Dark gray sandstone with less white silica sand - Gave good oil colors every bailer	12
1064-1075	Very white Silica Sandstone with little oil colors to be seen	11
1075-1084	Dark brown clay smelling very much like soapstone	9
1084-1093	Black clay and mixed with streaks of white clay - also some gray and red sandstone between	9
1093-1110	Conglomerate of streaks of slate and gray sand, also streaks of white and brown clay at intervals of 12" to 15" thick each	17
1110-1117	Almost pure white silica and sandstone and some red sandstone, mixed quite coarse - gave out. Good oil colors every time bailer was run and small black specks of asphaltum to be seen floating on surface of pond	7
1117-1130	Gray Silica - Sandstone - streaks of white clay at intervals of about every 2 feet. Here also were good oil colors to be seen	13
1130-1152	Conglomerate of sand clay - also thin layers of gray sandstone, also good oil colors to be seen	22
1152-1158	White Silica sandstone, quite hard - Very fine grained	6
1158-1170	Gray sandstone and streaks of soapstone - about 3 ft. each	12
1170-1196	White silica - Sandstone with streaks of white and dark colored clays in streaks	26
1196-1210	Gray silica sandstone, also streaks of black and brown clays. Here at this open caveout fine colors of oil, also those black asphaltum specks on the water.	14
1210-1235	White and gray silica sandstones mixed, also stratas of brown clay - giving out good colors of oil when bailed.	25
1235-1260	Gray coarse sandstone and stratas of mostly brown clay between at intervals of about 2 feet. At 1260 large black pieces of Asphalt oil commenced to come up in the Bailer - also commenced to appear very much yellow specks of paraffin - condensed - coming up with the bailer.	25

No permit

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
1260-1270	Coarse and gray sandstone, also a good deal of red sandstone. Mixed in this sandstone, the yellow Paraffine oil pieces seemed to increase very much until the pan would be literally covered with those little oil specks - every time the bailer was run. Also large black pieces came frequently.	10
1270-1282	Principally the same sandstone as from 1260 to 1270 but some streaks of clay were found between, but the colors and the yellow oil specks increased until parts of the slush pond was literally covered with a greasy film of oil.	12
1282-1293	Also was a soft gray sandstone with streaks of gray clay coming in between oil colors and the yellow Paraffine specks came as plentiful as ever, and colors to cover the water continued.	11
1293-1300	Five feet of this was hard gray sandstone - two feet of it was gray clay - at 1300 ft. yellow oil specks or globules were as plentiful as before. The above depth was reached June 30 at 6:00 P.M.	

Yours respectfully

(Signed) Neil Sinclair

P.S.

From 1260-1298 was the first encountered well saturated or impregnated strata of oil, which I found until the present depth and the future prospect of finding a good oil well at this place looks very encouraging.

N.S.

July 2, 1906

1300-1320	Sandy clay with small streaks of sand, rock, oil colors, about as usual but not as strong	20
1320-1340	Mostly gray and brown clays with some thin stratas of white silica sand rock at 1332 good oil colors appeared again, also the yellow oil globules	20
1340-1349	Gray clay mostly with thin streaks of brown clay - good oil colors in the clay - also thin stratas of same	9
1349-1356	Very dark sugar or brown sandstone - Had small pieces of oil rock mixed in. Good colors was shown at the depth.	7

No permit

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
1356-1365	White silica sand and red sandstone mixed - showing of oil not so good at this depth.	9
1365-1410	Mostly gray and dark colored clays with odd small stratas of white silica sandrock. Here at this depth the clays and sand became so much impregnated with those dry particles of Asphaltum that it made a brown oil scum in the pan - every time ti was bailed.	45
1410-1418	Mostly dark colored clay with streaks of white silica sand and red mixed showing a good deal of the brown oil scum on pan	8
1418-1445	Mostly all gray clay with thin sand strata at intervals - all showing good oil scum on pan.	(15)
1445-1505	White and red silica sandstone with some streaks of gray clay at intervals. At 1460 again was some of that heavy and condensed brown oil - happened to fall in with the caving of shale and sand rock	60
1505-1530	Hard gray sand - very compact - also about three feet very hard conglomerate of limestone with some quartz at 1508.	25
1530-1548	Fine gray sandstone of medium hardness - at this depth we stopped to wait for the 5-5/8" I.D. casing	10
	The streaks of shale and sandstone commenced to cave so bad that it was considered better to stop boring and case the well to the above depth.	
	This was August 2, 1906	
	A derrick had to be built to a height of 66 feet so that 11 tons in weight of casing could be put in. Aug. 27 commenced putting in the casing - it took 2-1/2 days to reach the bottom of the well	
1558-1577	Hard gray sandstone - white streaks of limestone and rose colored quartz	19
1577-1590	Dark brown sandstone mixed with Asphaltum globules - so it leaves a very heavy black scum of oil - containing these asphaltum blobs	13
1590-1680	Gray and red conglomerate sandstone - also mixed at intervals with gray grindstone sand rock - very coarse always, getting out that asphaltum scum every time the bailer is run	90
1680-1690	Soft fine sand with very pronounced oil colors in the sand. This, the 15th day of	

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
	September, when this depth was reached	10
	Signed, Neil Sinclair	
June 8, 1907		
1690-1735	Dark clay sand with streaks of clay at intervals of 18 to 20 feet	45
1735-1762	Brown sand stratas with gray clay mixed between	27
1762-1810	Brown sandstone with about half gray clay - Colors very strong at 1800 feet	48
1810-1860	About three-fourths gray clay - one-fourth light colored sand with good oil colors -	50
1860-1882	Dark brown sand - not much oil colors at this point. The bailer was fastened for some time, owing to part of the sandstone passing into the hold	22
1882-1905	Very dark brown sand - some gray clay mixed	23
1905-1928	Very brown and rusty iron sandstone - Here also was very good oil colors	23
1928-1940	Very rusty iron sand - almost red - very peculiar sand to be found at that depth	12
1940-1962	Half brown and rusty sand - the other half gray sandstone. Not much color of oil	22
1962-1978	Very dark and brown sandstone. Not much color of oil.	16
1978-1986	Gray sandstone mixed with some gray clay - Some oil colors	8
1986-2021	Very brown and rusty iron-Oxidized sand with some oil colors when bailed.	35
2021-2045	Gray Silica sand with some brown sand mixed and some clay streaks mixed in about every two or three feet	24
2045-2070	Gray sandstone and gray clay - about half and half	25
	At about 2050 to 2070 some small T.H.R. globules commenced to appear again when bailed	25
2070-2100	Was a gray sand with many oil colors when bailed	30
2100-2130	Gray sand - but iron-stained, containing considerable iron ore	30

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
2130-2140	Gray and blue sandstone in alternate stratas. Here was found an Animal fossil, containing a backbone.	10
2140-2182	Gray sand stratas about three feet thick with equal size stratas with gray clay between. Here was good oil colors.	42
2182-2210	Gray sandstone with alternate stratas of shale	28
2210-2230	Shale stratas mixed with brown sandstone	20
2230-2257	Gray sandstone with about 50 per cent gray clay in alternate stratas - also some quartz Colors showed good	27
2257-2312	Were stratas of red clay and gray clay in alternate stratas of about three feet thick each, also some streaks of gray sand	55
2312-2340	Gray clay and gray sandstone in alternate stratas of about three feet each	28
2340-2354	Gray clay, mostly small streaks of gray sandstone, from 2348 to 2354 the bailer and tools came up all spotted with small particles of tar - very greasy	14
2354-2374	Mostly all gray sandstone with some gray clay mixed	20
2374-2387	Gray sharp sand rock with some red sand mixed very hard	13
In this report is the total depht of well up until May 1, 1907		

Yours most respectfully

(signed) Neil Sinclair

May 12, 1907

2387-2399	Gray sandstone - colors good - tools spotted with oil	12
2399-2404	Gray sandstone - oil smears on tools and cable	5
2404-2428	Gray sandstone - streaks of clay - shows some colors and smears	24
2428-2466	Sandstone and clay	38
2466-2489	Sandstone " "	13
2489-2492	Gray sandstone - very hard	3
2492-2497	Light gray sandstone - very hard and fine grained - no oil showing but dead black scum on tools.	5

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
2497-2506	Hard Sandstone	9
2506-2515	" "	9
2515-2523	" "	8
2523-2530	" "	7
2530-2536	" "	6
2536-2544	" "	8
2544-2547	" "	3
2547-2553	" "	6
2553-2560	Hard fine grained sandstone - Some little trace of gray streaks.	7

(Signed) W. D. Tanner, Driller

2560-2566	Hard fine grained sandstone Some little streaks of clay	6 7
2566-2573	Same	6 $\frac{1}{2}$
2573-2579 $\frac{1}{2}$	"	5 $\frac{1}{2}$
2579 $\frac{1}{2}$ -2585 $\frac{1}{2}$	"	7
2585 $\frac{1}{2}$ -2591	Same but little trace of clay	7
2591-2598	Straight sandstone	7
2598-2605	Mostly sand with trace of clay	7
2605-2612	Same formation	9
2612-2619	"	8
2619-2626	"	11
2626-2635	"	7
2635-2643	"	7
2643-2654	"	8
2654-2661	"	7
2661-2668	"	7
2668-2676	Gray sandstone	8
2676-2683	"	7
2683-2690	" - good colors	7
2690-2698	Water sand at 2694 Light silica sand with good oil colors	8
2698-2705	Formation same with heavy scum	7
2705-2712	Some light silica sand with small cutting of blue limestone - good colors	7
2712-2719	Same formation	7
2719-2722	Same to 2720 - struck hard limestone	3
2722-2735	No records	

(signed) W. D. Tanner, Driller

2735-2742	Gray sandstone - good colors	7
2742-2752	Thru dark slimes	10
2752-2759	Gray sandstone	10
2759-2768	"	7
2768-2776	"	9
2776-2783	Clay and sandstone	8
2783-2789	" "	7
2789-2818	Clay	6

(Signed) W. D. Tanner, Driller

This is a copy of record of L. D. Tutweiler, Trustee, made by me.

(Signed) Chas. A. Diehl

LOG OF CAMBLACK WELL

NE 1/4 NW 1/4 Sec. 30 - 2 - 4 E

Depth	Formation	Thickness
0-4	Soil	4'
4-64	Cemented Hardpan	60'
64-66	Loose Granite Dry	2'
66-130	Cemented Hardpan	64'
130-138	Loose Granite - Water	8'
138-160	Cemented Hardpan	22'
160-182	Sandstone Red and Gray	22'
182-190	Granite Gravel & Water	8'
190-198	Gray Sandstone	8'
198-282	Fine Clay	84'
282-388	Fine Clay	106'
388-390	Granite Quarts	2'
390-408	Clay Shale	18'
408-415	Shale	7'
415-423	Blue Granite (Very Hard)	8'
423-618	Shale	195'
618-619	Sand (oil seepage)	1'
619-653	Shale with apparent veins of sand, oil seepage increasing with depth, Strong Gas Odor	34'
653-846	Shale & Heavy Clay	193'
Total Depth		846'

Note

146' of 12" pipe with shoe 14' O.D.
 556' of 10" " " " 12' O.D.
 Bits used 14' to depth 64 feet - 12" to 640 feet
 10" to 846 feet.

Signed by W. D. Tanner, Driller

846-851	Sandy shale & Slate	5'
851-862	Shale, Slate and Clay	11'
862-871	Shale and Clay	9'
871-880	Shale and Sandstone etc.	9'
880-889	Shale " "	9'
889-895	" " "	6'
895-902	Shale	7'
902-905	"	3'
905-906	Sand - Oil showing	1'
906-918	Shale	12'
918-930	Shale	12'
930-939	" and Sandstone	9'
939-945	Shale & Clay	6'
945-953	" " "	8'
953-987	Shale, Clay & Oil Globes	34'
987-1011	" " " "	24'
1011-1028	Shale and Clay	17'
1028-1036	Gray Silica Sand - Streaks of Clay at intervals of 2 feet.	8'

40 permit

Log of Canolback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
1036-1045	Same material but less clay	9'
1045-1052	Gray Sandstone - Soft & Streaky with large pieces caving	7'
1052-1064	Dark gray Sandstone with less white silica sand - Gave good oil colors every bailer	12'
1064-1075	Very white Silica Sandstone with little oil colors to be seen	11'
1075-1084	Dark brown clay smelling very much like soapstone	9'
1084-1093	Black clay and mixed with streaks of white clay - also some gray and red sandstone between	9'
1093-1110	Conglomerate of streaks of slate and gray sand, also streaks of white & brown clay at intervals of 12" to 15" thick each	17'
1110-1117	Almost pure white silica and sandstone and some red sandstone, mixed quite coarse - gave out Good oil colors every time bailer was run and small black specks of asphaltum to be seen floating on surface of pond	7'
1117-1130	Gray Silica - Sandstone - streaks of white clay at intervals of about every 2 feet. Here also were good oil colors to be seen	13'
1130-1152	Conglomerate of sand clay - also thin layers of gray sandstone, also good oil colors to be seen	22'
1152-1158	White Silica Sandstone, quite hard - Very fine grained	6'
1158-1170	Gray Sandstone and streaks of soapstone - about 3 ft. each	12'
1170-1196	White silica - Sandstone with streaks of white and dark colored clays in streaks.	26'
1196-1210	Gray silica Sandstone, also streaks of black and brown clays. Here at this open caveout fine colors of oil, also these black asphaltum specks on the water.	14'
1210-1235	White and gray silica Sandstones mixed, also strates of brown clay - giving out Good colors of oil when bailed	25'

Up permit

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
1235-1260	Gray coarse Sandstone and stratae of mostly brown clay between at intervals of about 2 feet. At 1260 large black pieces of Asphalt oil commenced to come up in the Bailer - also commenced to appear very much yellow specks of paraffin - condensed - coming up with the bailer.	25'
1260-1270	Coarse and Gray Sandstone, also a good deal of red Sandstone. Mixed in this Sandstone, the yellow Paraffine oil pieces seemed to increase very much until the pan would be literally covered with <u>those little oil specks</u> - every time the bailer was run. Also large black condensed oil pieces came frequently.	10'
1270-1282	Principally the same sandstone as from 1260 to 1270 but some streaks of clay were found between but the colors and the yellow oil specks increased until parts of the slush pond was literally covered with a <u>greasy film of oil</u> .	12'
1282-1293	Also was a soft gray sandstone with streaks of gray clay coming in between oil colors and the yellow Paraffine specks came as plentiful as ever, and colors to cover the water continued	11'
1293-1300	Five feet of this was hard gray Sandstone - two feet of it was gray clay - at 1300 ft. <u>yellow oil specks</u> or globules were as plentiful as before. The above depth was reached June 30 at 6:00 P.M.	

Yours respectfully

(Signed) Neil Sinclair

P.S.

From 1260-1298 was the first encountered well saturated or impregnated strata of oil, which I found until the present depth and the future prospect of finding a good oil well at this place looks very encouraging.

N.S.

W. J. Permitt

Log of Camelback Well-Continued

July 2, 1966

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
1300-1320	Sandy clay with small streaks of Sand, Rock, oil colors, about as usual but not as strong	20'
1320-1340	Mostly gray and brown clays with some thin stratas of white silica sand rock at 1332 good oil colors appeared again, also the yellow oil globules	20'
1340-1349	Gray clay mostly with thin streaks of brown clay - good oil colors in the clay - also thin stratas of same	9'
1349-1356	Very dark sugar or brown sandstone - Had small pieces of oil rock mixed in. Good colors was shown at the depth	7'
1356-1365	White silica sand and Red sandstone mixed - showing of oil not so good at this depth.	9'
1365-1410	Mostly gray and dark colored clays with odd small stratas of white silica Sandrock Here at this depth the clays and sand became so much impregnated with these dry particles of Asphaltum that it made a brown oil scum in the pan - every time it was bailed.	45'
1410-1418	Mostly dark colored clay with streaks of white silica sand and red mixed showing a good deal of the brown oil scum on pan	8'
1418-1445	Mostly all gray clay with thin sand strata at intervals - all showing good oil scum on pan	(15')
1445-1505	White and red silica sandstone with some streaks of gray clay at intervals. At 1460 again was some of that heavy and condensed brown oil - happened to fall in with the caving of shale and sand rock	60'
1505-1530	Hard gray sand - very compact - also about three feet very hard conglomerate of limestone with some quartz at 1508	25'
1530-1548	Fine gray Sandstone of medium hardness - at this depth we stopped to wait for the 5-5/8" I.D. Casing	10'

The streaks of shale and sandstone commenced to cave so bad that it was considered better to stop boring and case the well to the above depth.

This was August 2, 1966

A derrick had to be built to a height of 66 feet so that 11 tons in weight of casing could be put in. Aug. 27 commenced putting in the casing - it took 2-1/2 days to reach the bottom of the well

4-permit

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
1553-1577	Hard gray Sandstone - white streaks of Limestone and Rose colored quartz	19'
1577-1590	Dark brown Sandstone mixed with Asphaltum Globules - so it leaves a very heavy black scum of oil - containing these asphaltum Globules	13'
1590-1680	Gray and Red Conglomerate Sandstone - also mixed at intervals with gray grindstone sand rock - very coarse always, getting out that asphaltum scum every time the bailer is run	90'
1680-1690	Soft fine sand with very pronounced oil colors in the sand. This, the 15th day of September, when this depth was reached 1906	10'
Signed, Neil Sinclair		
June 8, 1907		
1690-1735	Dark clay sand with streaks of clay at intervals of 18 to 20 feet	45'
1735-1762	Brown sand stratas with gray clay mixed between	27'
1762-1810	Brown sandstone with about half gray clay - Colors very strong at 1800 feet	48'
1810-1860	About three-fourths gray clay - one-fourth light colored sand with good oil colors -	50'
1860-1882	Dark brown sand - not much oil colors at this point The bailer was fastened for some time, owing to part of the sandstone passing into the hole	22'
1882-1905	Very dark brown sand - some gray clay mixed	23'
1905-1928	Very brown and rusty iron sandstone - Here also was very good oil colors	23'
1928-1940	Very rusty iron sand - almost red - very peculiar sand to be found at that depth	12'
1940-1962	Half brown and rusty sand - the other half gray sandstone Not much color of oil	22'
1962-1978	Very dark and brown sandstone Not much color of oil	16'
1978-1986	Gray sandstone mixed with some gray clay - Some oil colors	8'
1986-2021	Very brown and rusty iron-Oxidized sand with some oil colors when bailed	35'

4th permit

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
2021-2045	Gray Silice sand with some brown sand mixed and some clay streaks mixed in about every two or three feet	24'
2045-2070	Gray Sandstone and gray clay - about half and half	25'
	At about 2060 to 2070 some small T.H.R. globules commenced to appear again when bailed	25'
2070-2100	Was a gray sand with many oil colors when bailed	30'
2100-2130	Gray Sand - but iron-stained, containing considerable iron ore	30'
2130-2140	Gray and blue sandstone in alternate stratas. Here was found an Animal fossil, containing a backbone	10'
2140-2182	Gray sand stratas about three feet thick with equal size stratas with gray clay between. Here was good oil colors	42'
2182-2210	Gray sandstone with alternate stratas of shale	28'
2210-2230	Shale stratas mixed with brown sandstone	20'
2230-2257	Gray Sandstone with about 50 per cent gray clay in alternate stratas - also some quartz Colors showed good	27'
2257-2312	Were stratas of red clay and gray clay in alternate stratas of about three feet thick each, also some streaks of gray sand	55'
2312-2340	Gray clay and gray sandstone in alternate stratas of about three feet each	28'
2340-2354	Gray clay, mostly small streaks of gray sandstone, from 2348 to 2354 the bailer and tools came up all spotted with small particles of tar - very greasy	14'
2354-2374	Mostly all gray sandstone with some gray clay mixed	20'
2374-2387	Gray sharp sand rock with some red sand mixed very hard	13'

In this report is the total depth of well up until May 1, 1907.

Yours most respectfully
(signed) Neil Sinclair

Log of Camelback Well-Continued

May 12, 1907

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
2387-2399	Gray Sandstone - colors good - Tools spotted with oil.	12'
2399-2404	Gray Sandstone - Oil smears on tools and cable	5'
2404-2428	Gray sandstone - streaks of clay - shows some colors and scums	24'
2428-2466	Sandstone and clay	38'
2466-2489	Sandstone and clay	23'
2489-2492	Gray Sandstone - very hard	3'
2492-2497	Light gray sandstone - very hard and fine grained - no oil showing but dead black scum on tools.	5'
2497-2506	Hard Sandstone	9'
2506-2515	" "	9'
2515-2523	" "	8'
2523-2530	" "	7'
2530-2536	" "	6'
2536-2544	" "	8'
2544-2547	" "	3'
2547-2553	" "	6'
2553-2560	Hard fine grained Sandstone - Some little trace of gray streaks.	7'
(Signed) W. D. Tanner, Driller		
2560-2566	Hard fine grained sandstone	6'
	Some little streaks of clay	7'
2566-2573	Same	6'
2573-2579	"	5'
2579-2585	"	7'
2585-2591	Same but little trace of clay	7'
2591-2598	Straight Sandstone	7'
2598-2605	Mostly sand with trace of clay	7'
2605-2612	Same formation	8'
2612-2619	"	8'
2619-2626	"	11'
2626-2635	"	7'
2635-2643	"	7'
2643-2654	"	8'
2654-2661	"	7'
2661-2668	"	7'
2668-2676	Gray Sandstone	8'
2676-2683	"	7'
2683-2690	" - good colors	7'
2690-2698	Water sand at 2694, Light silica sand with good oil colors	8'
2698-2705	Formation same with heavy scum	7'
2705-2712	Some light silica sand with small cutting of blue limestone - good colors	7'
2712-2719	Same formation	7'
2719-2722	Same to 2720- struck hard limestone	3'
2722-2735	No records	
(signed) W. D. Tanner, Driller		

Log of Camelback Well-Continued

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
2735-2742	Gray Sandstone - <u>good colors</u> Thru dark alimes	7' 10' 7' 9'
2742-2752	Gray Sandstone	8'
2752-2759	" "	7'
2759-2768	" "	6'
2768-2776	Clay & Sandstone	
2776-2783	" "	
2783-2789	Clay	
2789-2818	"	

(Signed) W. D. Tanner, Driller

This is a copy of record of L. D. Tutweiler, Trustee, made by me.

(Signed) Chas. A. Diehl

Upo permit

2. Bowie Oil Leasing Syndicate No. 1 SE¹NW¹ Sec. 16, T. 13S., R. 28E.

Commenced *****?

Completed drilling February 1, 1925

Total depth 4,110 feet

Shows:

1925-1935 - slight show oil
2100-2300 - sandy shale, slight show oil
2670-2700 - sandy shale, slight show oil and gas
2958-2962 - sand, slight show oil and gas
3580 - shale, slight show oil and gas
3815-4110 - shows oil when tested with chloroform; also shows H₂S

Log on file and plotted

3. Funk Benevolent Corp., No. 1 Fee SE¹NW¹ Sec. 27, T. 13S., R. 30E.

Commenced drilling 1929

Completed **** Still drilling December 1, 1938

Depth on above date, 6,466 feet

Temperature at 2,430 feet - 165°F

Temperature at 6,400 feet - 274°F

Shows of oil and gas numerous beginning at 1,730 feet and occurring at frequent intervals to bottom.

Hole full of water; operators attempting shut-off and swab test
No correlation of formations available but suggestion is offered that the conglomerate in the lower 500 feet of hole may be basal Cretaceous.

Log on file to 6,400 feet

4. Southern Pacific Railroad Water Well, Willcox

Seepage active 1928-1930

Total depth 650 feet

Produced light oil, kerosene and gasoline; pumpers sold 2,800 gallons to local ranchers at 10¢ per gallon.

Well not used since 1930

Log on file and plotted

GRAHAM COUNTY

1. Underwriters Syndicate of N. Y. Mary Mack No. 1 NE¹ Sec. 13, T. 6S., R. 24E.

Total depth 3,767 feet

Shows:

1450-1451 - oil sand

3104-3108 - oil sand

MARICOPA COUNTY

1. Camelback No. 1 NE¹NW¹ Sec. 30, T. 2N., R. 4E.

Drilled 1907

Total depth 2,818 feet

Shows numerous between 618 feet and 2,400 feet

Log on file and plotted

Located on flank of Camelback uplift

STATE LAND DEPARTMENT

STATE OF ARIZONA

Phoenix, Arizona

REPORT

On

" THE OIL POSSIBILITIES OF ARIZONA "

By

D. A. HOLLI, Geologist
State Land Department

Compiled under the Direction of

WM. ALBERTS, State Land Commissioner
and
JOHN A. DURDEN, Deputy State Land Commissioner

STATE LAND BOARD

R. C. STANFORD, Governor	Chairman
JAMES H. KERBY, Secretary of State	Member
JOE CONWAY, Attorney General	Member
ANA FROMMILLER, State Auditor	Member
HARRY M. MOORE, State Treasurer	Member

December 1, 1938

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
OIL AND GAS OPERATIONS
P.O. Box 99, Taft, California.

May 1, 1928.

SCOUT REPORT OF ARIZONA

Areas Visited and Data Gathered by H. V. Moffat and
R. E. Canfield in April, 1928.

YUMA COUNTY:

B. W. Sinclair, SE¹ SW¹ Section 32, T. 9 S., R. 23 W., G. &
S. R. M. Drilled to depth of 1,815 feet. Water not shut off. Oper-
ations suspended in February, 1928. Some showings of oil and gas re-
ported. There is no evidence of structure. Information from Mr.
Murray April 10, 1928.

* * * * *

MARICOPA COUNTY:

Frank Baird. Well No. 1. NE¹ NW¹ Section 4, T. 8 S., R. 13 W.,
G. & S. R. M. Drilling at 2,400 feet in water-sand with cable tools,
carrying 10-inch casing. Gas sand encountered at 1,650 feet, no oil
shows. Formations penetrated mostly red clay, sand, gravel, and boulders.
Well is located on a topographic high in an extremely broad valley. Well
visited April 10, 1928. Information from Mr. Barkley, superintendent.

* * * * *

Camelback Well. NE¹ NW¹ Section 30, T. 3 N., R. 4 E., G. &
S. R. M. Drilled in 1906 and 1907 to depth of 2,789 feet.

Condensed Log of Well
(Furnished by Bob Thomas, Globe, Arizona)

8 3/8-inch casing set at 1,550 feet

0 -	130 -	Soil and cemental hardpan	1,505 - 1,530 -	Hard gray sand
130 -	138 -	Loose granite - water	1,530 - 1,680 -	Hard gray sandstone
138 -	388 -	Sandstone	1,680 - 1,690 -	Conglomerate - gray and red
388 -	390 -	Granite and quartz	1,690 - 2,230 -	Gray and brown sand and sandstone
390 -	415 -	Shale	2,230 - 2,315 -	Red and gray clay
415 -	425 -	Blue granite - very hard	2,315 - 2,374 -	Gray sandstone
425 -	844 -	Shale and heavy clay	2,374 - 2,497 -	Gray sandstone and streaks of clay - oil seeps on tools
844 -	905 -	Shale, slate, and clay	2,497 - 2,648 -	Sand with trace of clay
905 -	908 -	Sand - oil showing	2,648 - 2,690 -	Gray sandstone
908 -	1,028 -	Shale and clay	2,690 - 2,698 -	Water sand
1,028 -	1,064 -	Gray sandstone - trace oil	2,698 - 2,768 -	Gray sandstone
1,064 -	1,110 -	Clay	2,768 - 2,789 -	Clay and sand
1,110 -	1,117 -	White silica sandstone		
1,117 -	1,300 -	Coarse gray sandstone		
1,300 -	1,348 -	Clay		
1,348 -	1,410 -	Sandstone		
1,410 -	1,505 -	Sandstone		

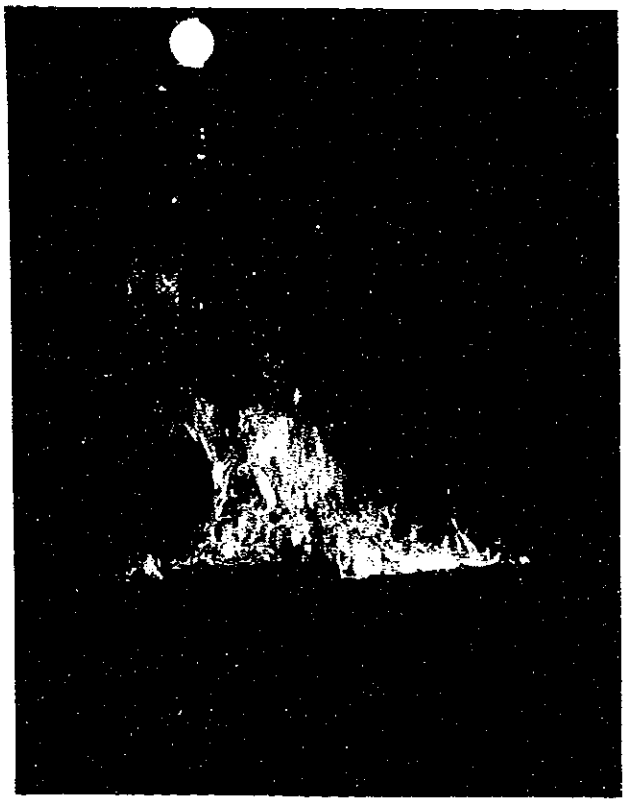
2 - generally accepted.



High Gravity Oil burning at seepage, Chicago Ave.

the permit

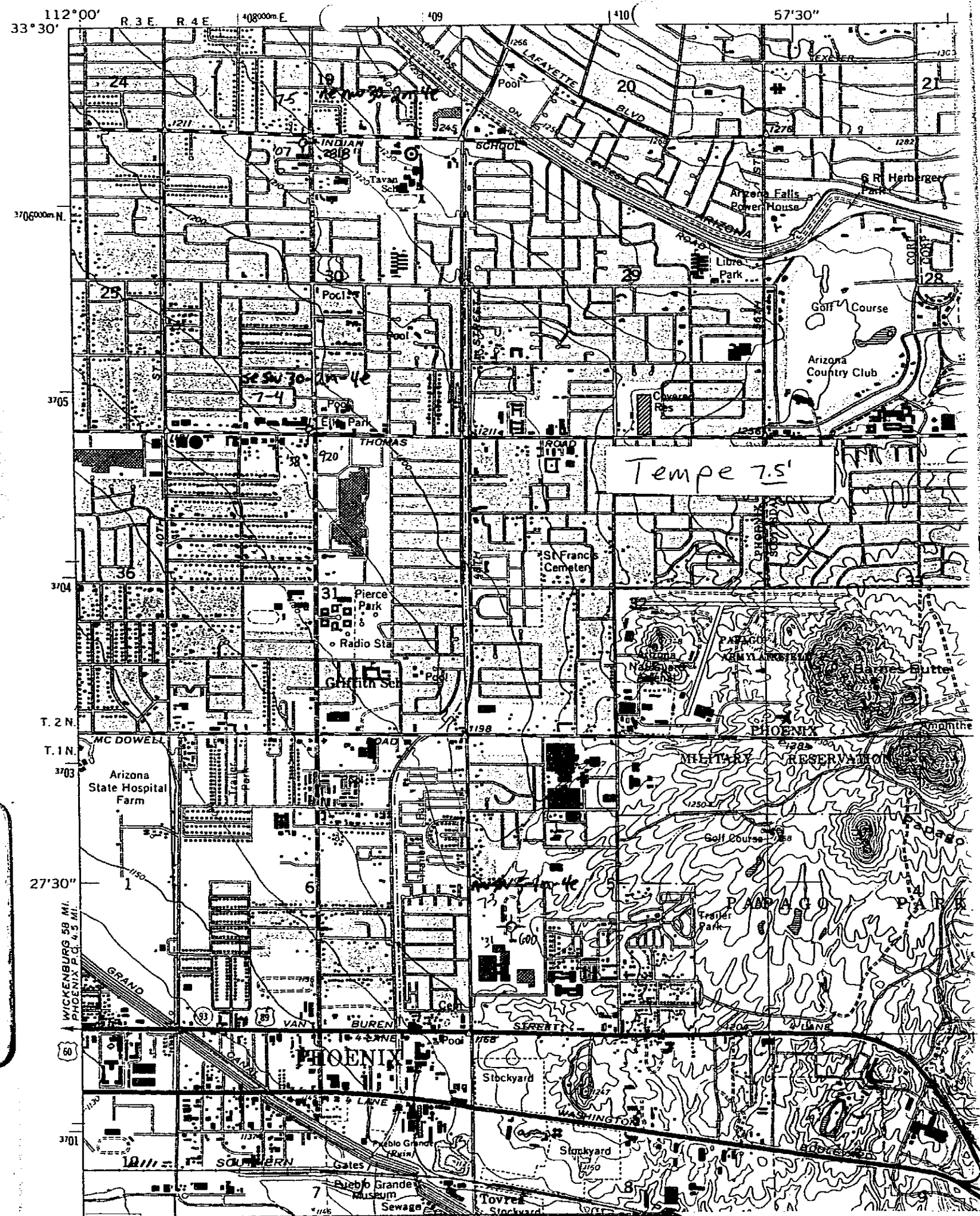
High Gravity Oil burning at seepage, Chicago Ave.
and Thomas Road, NE of Phoenix, SE SW Sec. 30,
T. 2 N. R. 4 E. Seepage from water well, 172 feet
deep, pumping about 500,000 gallons water daily.



High Gravity Oil burning at seepage, Chicago Ave.

the permit

High Gravity Oil burning at seepage, Chicago Ave.
and Thomas Road, NE of Phoenix, SE SW Sec. 30,
T. 2 N. R. 4 E. Seepage from water well, 172 feet
deep, pumping about 500,000 gallons water daily.



7-5

LOG OF CAMELBACK WELL

Trustee
L.D. TUTWEILER-CAMELBACK #1
NE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 30, 2-N 4-E.

Maricopa County

Depth	Formation	Thickness
0 - 4'	Soil	4'
4 - 64	Cemented Hardpan	60
64 - 60	Loose Granite Dry	2
66 - 130	Cemented Hardpan	64
130 - 138	Loose Granite - Water	8
138 - 160	Cemented Hardpan	22
160 - 182	Sandstone Red and Gray	22
182 - 190	Granite Gravel & Water	8
190 - 198	Gray Sandstone	8
198 - 282	Fine Clay	84
282 - 388	Fine Clay	106
388 - 390	Granite Quartz	2
390 - 408	Clay Shale	18
408 - 415	Shale	7
415 - 423	Blue Granite (Very Hard)	8
423 - 618	Shale	195
618 - 619	Sand (oil seepage)	1
619 - 653	Shale with apparent veins of sand, oil seepage increasing with depth, strong gas odor	34
653 - 846	Shale & Heavy Clay	193
Total Depth		846'

Note:

148' of 12" pipe with shoe 14' O.D.
556' of 10" pipe with shoe 12' O.D.
Bits used 14' to depth 64 feet - 12" to 640 feet
10" to 846 feet.

Signed by W. D. Tanner, Driller

846 - 851	Sandy shale and slate	5'
851 - 862	Shale, slate and clay	11
862 - 871	Shale and clay	9
871 - 880	Shale and sandstone etc.	9
880 - 889	Shale and sandstone, etc.	9
889 - 895	Shale and Sandstone	6
895 - 902	Shale	7
902 - 905	Shale	3
905 - 906	Sand - Oil showing	1
906 - 918	Shale	12
918 - 930	Shale	12
930 - 939	Shale and Sandstone	9
939 - 945	Shale & Clay	6
945 - 953	Shale & Clay	8
953 - 987	Shale, Clay & Oil Globbs	34
987 - 1011	Shale, Clay & Oil Globbs	24
1011 - 1028	Shale and Clay	17
1028 - 1036	Gray Silica Sand - Streaks of Clay at intervals of 2 feet.	8
1036 - 1045	Same material but less clay	9
1045 - 1052	Gray Sandstone- Soft & Streaky with large pieces caving	7
1052 - 1064	Dark gray sandstone with less white silica sand - Gave good oil colors every bailer	12
1064 - 1075	Very white Silica Sandstone with little oil colors to be seen	11
1075 - 1084	Dark Brown clay smelling very much like soapstone	9

LOG OF CAMELBACK WELL (Continued)

TUTWEILER-CAMELBACK #1
Maricopa County

NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 30, 2-N 4-E

1085 - 1093	Black clay and mixed with streaks of white clay - also some gray and red sandstone between	9'
1093 - 1110	Conglomerate of streaks of slate and gray sand, also streaks of white & brown clay at intervals of 12" to 15" thick each	17
1110 - 1117	Almost pure white silica and sandstone and some red sandstone, mixed quite coarse - gave out - Good oil colors every time bailer was run and small black specks of asphaltum to be seen floating on surface of pond	7
1117 - 1130	Gray Silica - Sandstone - streaks of white clay at intervals of about every 2 feet. Here also were good oil colors to be seen	13
1130 - 1152	Conglomerate of sand clay - also thin layers of gray sandstone, also good oil colors to be seen	22
1152 - 1158	White Silica Sandstone, quite hard - Very fine grained	6
1158 - 1170	Gray Sandstone and streaks of soap-stone - about 3 ft. each	12
1170 - 1196	White Silica - Sandstone with streaks of white and dark colored clays in streaks	26
1196 - 1210	Gray Silica Sandstone, also streaks of black and brown clays. Here at this open caveout fine colors of oil, also those black asphaltum specks on the water.	14
1210 - 1235	White and gray silica sandstones mixed, also stratas of brown clay - giving out good colors of oil when bailed	25
1235 - 1260	Gray coarse Sandstone and stratas of mostly brown clay between at intervals of about 2 feet. At 1260 large black pieces of Asphalt oil commenced to come up in the Bailer - also commenced to appear very much yellow specks of paraffin - condensed - coming up with the bailer.	25
1260 - 1270	Coarse and gray Sandstone, also a good deal of red Sandstone. Mixed in this Sandstone, the yellow Paraffine oil pieces seemed to increase very much until the pan would be literally covered with those little oil specks - every time the bailer was run. Also large black condensed oil pieces came frequently.	10
1270 - 1282	Principally the same sandstone as from 1260 to 1270 but some streaks of clay were found between but the colors and the yellow oil specks increased until parts of the slush pond was literally covered with a greasy film of oil.	12
1282 - 1293	Also was a soft gray sand sandstone with streaks of gray clay coming in between oil colors and the yellow Paraffine specks came as plentiful as ever, and colors to cover the water continued.	11
1293 - 1300	Five feet of this was hard gray Sandstone - two feet of it was gray clay - at 1300 ft. yellow oil specks or globules were as plentiful as before. The above depth was reached June 30 at 6:00 P.M.	

Yours respectfully,

(Signed) Neil Sinclair

LOG OF CAMELBACK WELL (Continued)

NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 30, 2-N 4-E

TUTWEILER-CAMELBACK #1
Maricopa County

P. S.

From 1260 - 1298 was the first encountered well saturated or impregnated strata of oil, which I found until the present depth and the future prospect of finding a good oil well at this place looks very encouraging.

N. S.

July 2, 1906

<u>Depth</u>	<u>Formation</u>	<u>Thickness</u>
1300 - 1320	Sandy clay with small streaks of Sand, Rock, oil colors, about as usual but not as strong	20'
1320 - 1340	Mostly gray and brown clays with some thin stratas of white silica sand rock at 1332 good oil colors appeared again, also the yellow oil globules	20
1340 - 1349	Gray clay mostly with thin streaks of brown clay - good oil colors in the clay - also thin stratas of same	9
1349 - 1356	Very dark sugar or brown sandstone - Had small pieces of oil rock mixed in. Good colors was shown at the depth.	7
1356 - 1365	White silica sand and red sandstone mixed - showing of oil not so good at this depth.	9
1365 - 1410	Mostly gray and dark colored clays with odd small stratas of white silica sandrock Here at this depth the clays and sand became so much impregnated with those dry particles of Asphaltum that it made a brown oil scum in the pan - every time it was bailed.	45
1410 - 1418	Mostly dark colored clay with streaks of white silica sand and red mixed showing a good deal of the brown oil scum on pan	8
1418 - 1445	Mostly all gray clay with thin sand strata at intervals - all showing good oil scum on pan	(15)
1445 - 1505	White and red silica sandstone with some streaks of gray clay at intervals. At 1460 again was some of that heavy and condensed brown oil - happened to fall in with the caving of shale and sand rock	60
1505 - 1530	Hard gray sand - very compact - also about three feet very hard conglomerate of limestone with some quartz at 1508	25
1530 - 1548	Fine gray Sandstone of medium hardness - at this depth we stopped to wait for the 5-5/8" I. D. Casing	10

The streaks of shale and sandstone commenced to cave so bad that it was considered better to stop boring and case the well to the above depth.

This was August 2, 1906

A derrick had to be built to a height of 66 feet so that 11 tons in weight of casing could be put in. Aug. 27 commenced putting in the casing - it took 2- $\frac{1}{2}$ days to reach the bottom of the well.

LOG OF CAMELBACK WELL (Continued)

NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 30, 2-N 4-E

TUTWEILER-CAMELBACK #1
Maricopa County

1558 - 1577	Hard gray sandstone - white streaks of Limestone and Rose colored quartz	19'
1577 - 1590	Dark brown Sandstone mixed with Asphaltum Globules - so it leaves a very heavy black scum of oil - containing these asphaltum globules	13
1590 - 1680	Gray and Red Conglomerate Sandstone - also mixed at intervals with gray grindstone sand rock - very coarse always, getting out that asphaltum scum every time the bailer is run	90
1680 - 1690	Soft fine sand with very pronounced oil colors in the sand. This, the 15th day of September, when this depth was reached	10

(Signed) Neil Sinclair

June 8, 1907

1690 - 1735	Dark clay sand with streaks of clay at intervals of 18 to 20 feet	45
1735 - 1762	Brown sand stratas with gray clay mixed between	27
1762 - 1810	Brown sandstone with about half gray clay- Colors very strong at 1800 feet	48
1810 - 1860	About three-fourths gray clay - one-fourth light colored sand with good oil colors -	50
1860 - 1882	Dark brown sand - not much oil colors at this point. The bailer was fastened for some time, owing to part of the sandstone passing into the hole	22
1882 - 1905	Very dark brown sand - some gray clay mixed	23
1905 - 1928	Very brown and rusty iron sandstone - Here also was very good oil colors	23
1928 - 1940	Very rusty iron sand, almost red - very peculiar sand to be found at that depth	12
1940 - 1962	Half brown and rusty sand - the other half gray sandstone. Not much color of oil	22
1962 - 1978	Very dark and brown sandstone. Not much color of oil	16
1978 - 1986	Gray sandstone mixed with some gray clay - Some oil Colors	8
1986 - 2021	Very brown and rusty iron-Oxidized sand with some oil colors when bailed	35
2021 - 2045	Gray Silica sand with some brown sand mixed and some clay streaks mixed in 2-3 ft.	24
2045 - 2070	Gray Sandstone and gray clay - about half and half	25
	At about 2060 to 2070 some small T.H.R. globules commenced to appear again when bailed	25
2070 - 2100	Was a gray sand with many oil colors when bailed	30
2100 - 2130	Gray Sand - but iron-stained, containing considerable iron ore	30
2130 - 2140	Gray and blue sandstone in alternate stratas. Here was found an Animal fossil, containing a backbone	10
2140 - 2182	Gray sand stratas about three feet thick with equal size stratas with gray clay between. Here was good oil colors	42
2182 - 2210	Gray sandstone with alternate stratas of shale	28
2210 - 2230	Shale stratas mixed with brown sandstone	20
2230 - 2257	Gray Sandstone with about 50 per cent gray clay in alternate stratas - also some quartz Colors showed good	27

LOG OF CAMELBACK WELL (Continued)

NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 30, 2-N 4-E

TUTWEILER-CAMELBACK #1
Maricopa County

2257 - 2312	Were stratas of red clay and gray clay in alternate stratas of about three feet thick each, also some streaks of gray sand	55
2312 - 2340	Gray clay and gray sandstone in alternate stratas of about three feet each	28
2340 - 2354	Gray clay, mostly small streaks of gray sandstone, from 2348 to 2354 the bailer and tools came up all spotted with small particles of tar - very greasy	14
2354 - 2374	Mostly all gray sandstone with some gray clay mixed	20
2374 - 2387	Gray sharp sand rock with some red sand mixed very hard	13

In this report is the total depth of well up until May 1, 1907

Yours most respectfully,

(Signed) Neil Sinclair

May 12, 1907

2387 - 2399	Gray Sandstone - colors good - Tools Spotted with oil	12
2399 - 2404	Gray Sandstone - oil smears on tools and cable	5
2404 - 2428	Gray sandstone - streaks of clay - shows some colors and smears	24
2428 - 2466	Sandstone and clay	38
2466 - 2489	Sandstone and clay	13
2489 - 2492	Gray Sandstone - very hard	3
2492 - 2497	Light gray sandstone - very hard and fine grained - no oil showing but dead black scum on tools	5
2497 - 2506	Hard Sandstone	9
2506 - 2515	Hard Sandstone	9
2515 - 2523	Hard Sandstone	8
2523 - 2530	Hard Sandstone.	7
2530 - 2536	Hard Sandstone	6
2536 - 2544	Hard Sandstone	8
2544 - 2547	Hard Sandstone	3
2547 - 2553	Hard Sandstone	6
2553 - 2560	Hard fine grained Sandstone - Some little trace of gray streaks.	7

(Signed) W. D. Tanner, Driller

2560 - 2566	Hard fine grained sandstone	6
	Some little streaks of clay	7
2566 - 2573	Same	6 $\frac{1}{2}$
2573 - 2579 $\frac{1}{2}$	Same	5 $\frac{1}{2}$
2579 $\frac{1}{2}$ - 2585 $\frac{1}{2}$	Same	7
2585 $\frac{1}{2}$ - 2591	Same but little trace of clay	7
2591 - 2598	Straight Sandstone	7
2598 - 2605	Mostly sand with trace of clay	7
2605 - 2612	Same formation	9
2612 - 2619	Same formation	8
2619 - 2626	Same formation	11
2626 - 2635	Same formation	7
2635 - 2643	Same formation	7
2643 - 2654	Same formation	8

LOG OF CAMELBACK WELL (Continued)

TUTWEILER-CAMELBACK #1

NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 30, 2-N 4-E

Maricopa County

2654 - 2661	Same formation	7
2661 - 2668	Same formation	7
2668 - 2676	Gray Sandstone	8
2676 - 2683	Gray Sandstone	7
2683 - 2690	" - good colors	7
2690 - 2698	Water sand at 2694 Light silica sand with good oil colors	8
2698 - 2705	Formation same with heavy scum	7
2705 - 2712	Some light silica sand with small cutting of blue limestone - good colors	7
2712 - 2719	Same formation	7
2719 - 2722	Same to 2720 - struck hard limestone	3
2722 - 2735	No records	

(Signed) W. D. Tanner, Driller

2735 - 2742	Gray Sandstone - good colors	7
	Thru dark slimes	10
2742 - 2752	Gray Sandstone	9
2752 - 2759	Gray Sandstone	8
2759 - 2768	Gray Sandstone	7
2768 - 2776	Clay & Sandstone	6
2776 - 2783	Clay & Sandstone	
2783 - 2789	Clay	
2789 - 2818	Clay	

(Signed) W. D. Tanner, Driller

This is a copy of record of L. D. Tutweiler, Trustee, made by me.

(Signed) Chas. A. Diehl